DOCUMENT RESUME

ED 335 584 CG 023 577

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TITLE	Incidence of Traumatic Events and Posttraumatic Psychological Symptoms among College Students.
PUB DATE	May 91
NOTE	20p.; Paper presented at the Annual Meeting of the Midwestern Psychological Association (63rd, Chicago, IL, May 2-4, 1991).
PUB TYPE	Reports - Research/Technical (143) -- Speeches/Conference Papers (150)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	Anxiety; Child Abuse; College Students; Death; Depression (Psychology); Drinking; Higher Education; *Incidence; *Life Events; Rape; *Stress Variables; Victims of Crime
IDENTIFIERS	*Posttraumatic Stress Disorder

ABSTRACT

Most research on posttraumatic stress disorder (PTSD) has been conducted on war veterans; little is known about the incidence of traumatic events, PTSD, and posttraumatic symptoms among other populations. This study was undertaken to assess the incidence of traumatic events of sufficient intensity to potentially cause PTSD among a sample of 440 college students. Subjects completed the Traumatic Events scale, the Purdue PTSD Scale, the Impact of Events Scale, the Mississippi Scale for PTSD, the Beck Depression Inventory, the State-Trait Anxiety Inventory, and the Alcohol Questionnaire. Only 17% of the respondents reported experiencing no traumatic event. One-third of the sample had experienced four or more separate events, and 9% of the sample had experienced seven or more events. Unexpected deaths, accidents, and other life-threatening situations were reported frequently. Males reported more accidents and life-threats; females reported more rape or abuse. The findings suggest that these traumatic events often result in significant psychological symptoms, and people who are survivors of rape, abuse, crime, or an event they cannot talk about are at particular risk. Experiencing multiple events appeared to increase the risk for psychological symptoms. A relationship was found between traumatic experiences and later anxiety, depression and PTSD symptomatology. (NB)

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Incidence of Traumatic Events and Posttraumatic Psychological Symptoms among College Students

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Paper presented at the Sixty-third annual meeting of the Midwestern Psychological Association, Chicago, May, 1991.

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INTRODUCTION

Most of the research on Posttraumatic Stress Disorder (PTSD) has been done on war veterans, especially those serving in Vietnam. As a result, little is known about the incidence of traumatic events, PTSD, and posttraumatic symptoms among other populations. The present study was conducted to assess the incidence, among college students, of a variety of traumatic events that are of sufficient intensity to potentially cause PTSD.

A related, although more general, methodological shortcoming in traumatic stress research stems from the frequent practice of simply selecting and studying persons exposed to a particular trauma. This strategy has several effects. First, it does not allow comparisons across different types of stressors. Second, it is not a random sample of victims of the particular event since often only those experiencing difficulty come to the attention of researchers. This in turn results in an attenuated range of traumatic stress reactions. By randomly sampling persons in the college student population, these methodological shortcomings are circumvented.

PROCEDURE

Subjects

A sample of 440 undergraduates (234 males, 206 females) completed a questionnaire asking whether they had experienced any of a number of traumatic events. If they experienced multiple events, they were asked to judge which was the most traumatic. Following this, they filled out several standard questionnaires examining the psychological impact of the most traumatic event. Various measures of psychopathology (depression, anxiety, and alcohol use) were also completed.

Measures

Traumatic Events Scale - This scale assesses past and current experiences with a range of traumatic events including: 1) unexpected death of a loved one ("death of a S/O"), 2) serious accident, 3) being in a life

threatening situation, 4) abuse as a child or adult, 5) rape, and 6) other crime. In addition, there are three residual categories labeled "other event" (any other traumatic event not listed), "event can't tell" (events so traumatic they can not discuss them) and "no event."

Purdue PTSD Scale - Revised (PTSD) - This scale assesses DSM-III-R symptoms of Posttraumatic Stress Disorder.

Impact of Events Scale (IES) - This scale assesses intrusion and avoidance symptoms of traumatic stress and is commonly used in research in the area (Horowitz, Wilner, & Alvarez, 1979).

Mississippi Scale for PTSD (Mississippi) - This scale also assesses traumatic stress, but at a much more general level.

Beck Depression Inventory (BDI) - This is a brief measure for assessing symptoms of depression (Beck et al. 1961)

State-Trait Anxiety Inventory - Trait Version (STAI-Trait) - This scale measures trait anxiety (Speilberger, 1983).

Alcohol Questionnaire (Alcohol Use) - This is a brief screening device assessing current alcohol use.

RESULTS

One of the most startling findings of this study is that large numbers of college students have experienced some type of traumatic event. Only 17% of the respondents reported experiencing no traumatic event. One-third of the sample had experienced four or more separate events, and 9% of the sample had experienced seven or more events. Figure 1 shows that unexpected deaths, accidents, and other life-threatening situations are especially frequent. Males appear to experience more accidents and life-threats, whereas females are more likely to be raped or abused.

Subjects were then asked to indicate which of the event(s) that they had experienced was the most traumatic. As shown in Figure 2, the event categories "death of a significant other", "other event", and "abuse" were often reported as being the most traumatic. Among women, the event category

"rape" was frequently endorsed as worst, whereas among men, the categories "event can't tell" and "threat" were often reported as worst.

As seen in Figure 3, differences in the worst event experienced by a person produced different levels of posttraumatic symptoms as assessed by the PTSD ($F(8, 383) = 6.47$ $p \leq .0001$) and the IES ($F(8, 385) = 4.41$ $p \leq .0001$). The event categories, "death of a significant other," "other event," "abuse" and "event can't tell" (and "rape" for women) were all especially high and roughly parallel the findings shown in Figure 2. In addition, women were significantly higher on both the Purdue PTSD questionnaire $F(1, 383) = 10.73$ $p \leq .0026$ and the IES $F(1, 385) = 10.03$ $p \leq .002$ indicating higher levels of reported trauma symptomatology.

Figure 4 shows depression, anxiety, and alcohol use as a function of gender and having experienced various events. Compared with people not experiencing the event, people experiencing abuse, crime, or death of a significant other reported being more depressed. People who had been raped or who had experienced an event they could not talk about were significantly more depressed and anxious than people who had not experienced those events. There were also several differences between men and women in reported symptomatology. As shown in Figure 4, women reported significantly higher levels of depression ($F(1, 438) = 4.45$ $p \leq .05$) than men, and men reported significantly higher levels of alcohol consumption ($F(1,434)=36.43$ $p \leq .0005$) than women.

Finally, the impact of experiencing multiple events on symptoms of traumatic stress, depression, anxiety, and alcohol use was assessed. (see Figure 5). A series of ANOVAS revealed significant increases in PTSD ($F(3, 430) = 22.75$ $p \leq .0001$), Mississippi ($F(3, 429) = 9.44$ $p \leq .0001$), IES ($F(3, 431) = 19.2$ $p \leq .0001$), BDI ($F(3, 432) = 5.01$ $p \leq .002$), and STAI ($F(3, 432) = 2.66$ $p \leq .05$) scores as a function of the number of traumatic events experienced.

DISCUSSION

There is a surprisingly high incidence of serious traumatic experiences in the college population. These experiences often result in significant psychological symptoms, and people who are survivors of rape, abuse, crime, or an event they can not talk about are at particular risk. In addition, experiencing multiple events increases the risk for psychological symptoms. Given the relationship between traumatic experiences and later anxiety, depression, and PTSD symptomatology in this unselected population, it is recommended that mental health workers routinely assess traumatic life experiences in clients presenting these symptoms in therapy.

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Figure 1

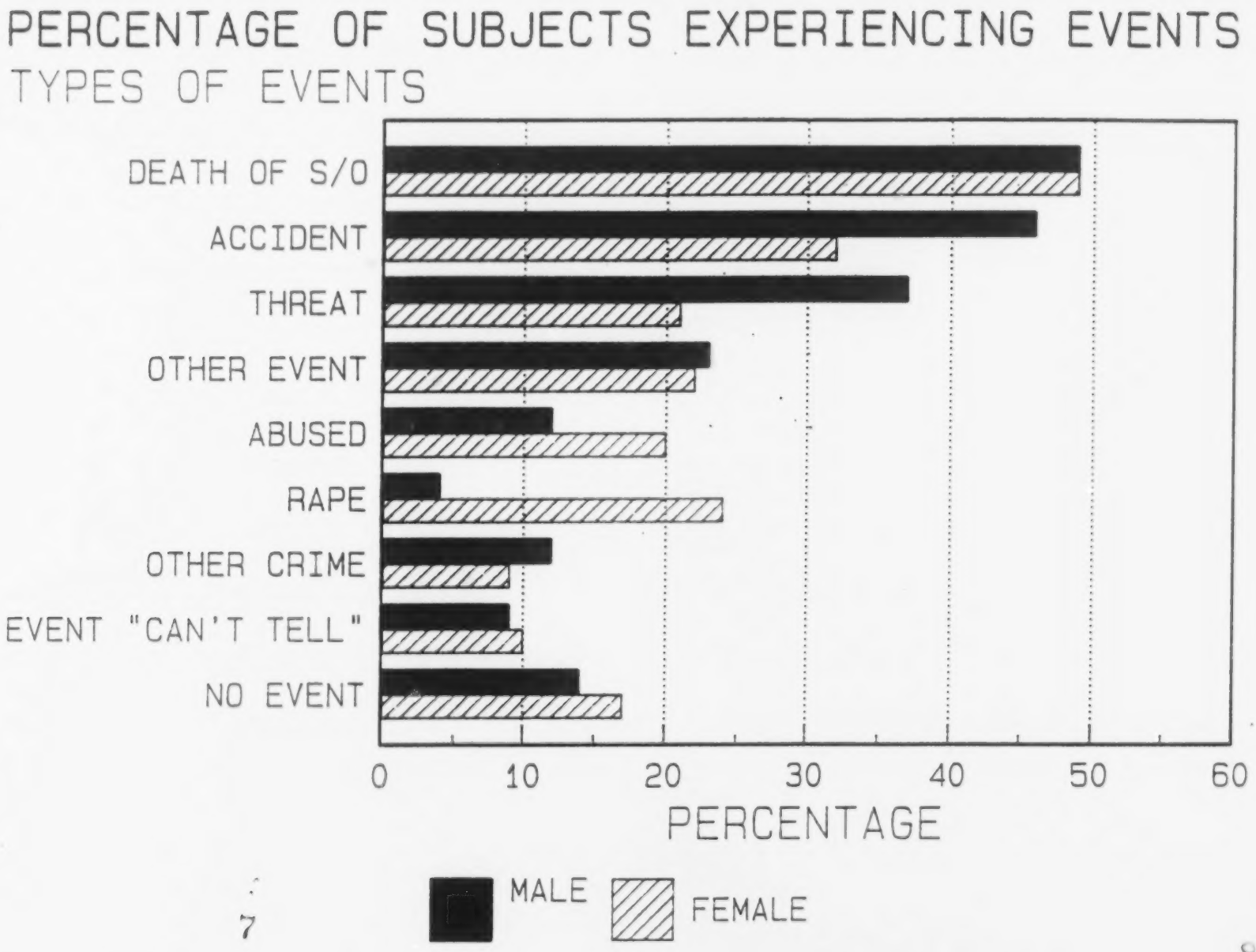

PERCENTAGE OF SUBJECTS EXPERIENCING EVENTS
TYPES OF EVENTS
DEATH OF S/O
ACCIDENT
THREAT
OTHER EVENT
ABUSED
RAPE
OTHER CRIME
EVENT "CAN'T TELL"
NO EVENT
0
10
20
30
40
50
60
PERCENTAGE
MALE
FEMALE

Figure 2

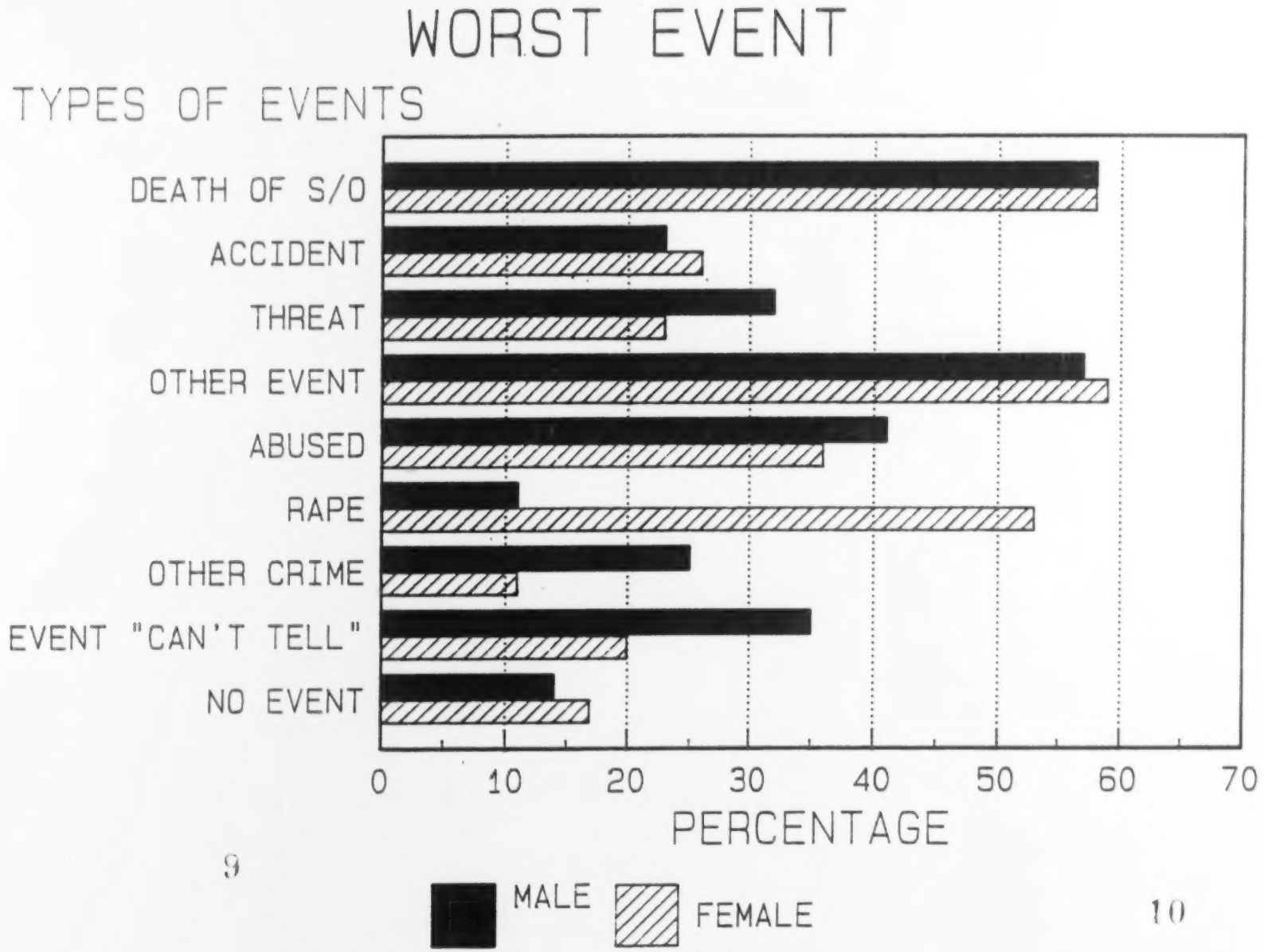
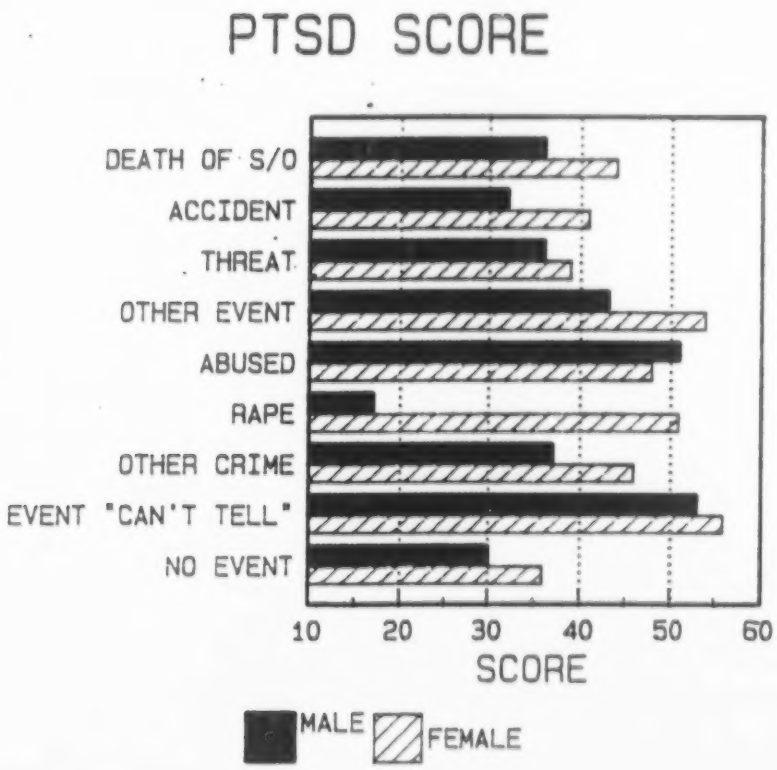

WORST EVENT
TYPES OF EVENTS
DEATH OF S/O
ACCIDENT
THREAT
OTHER EVENT
ABUSED
RAPE
OTHER CRIME
EVENT "CAN'T TELL"
NO EVENT
0
10
20
30
40
50
60
70
PERCENTAGE
MALE
FEMALE

Figure 3

IMPACT OF WORST EVENT ON TRAUMA SYMPTOMS



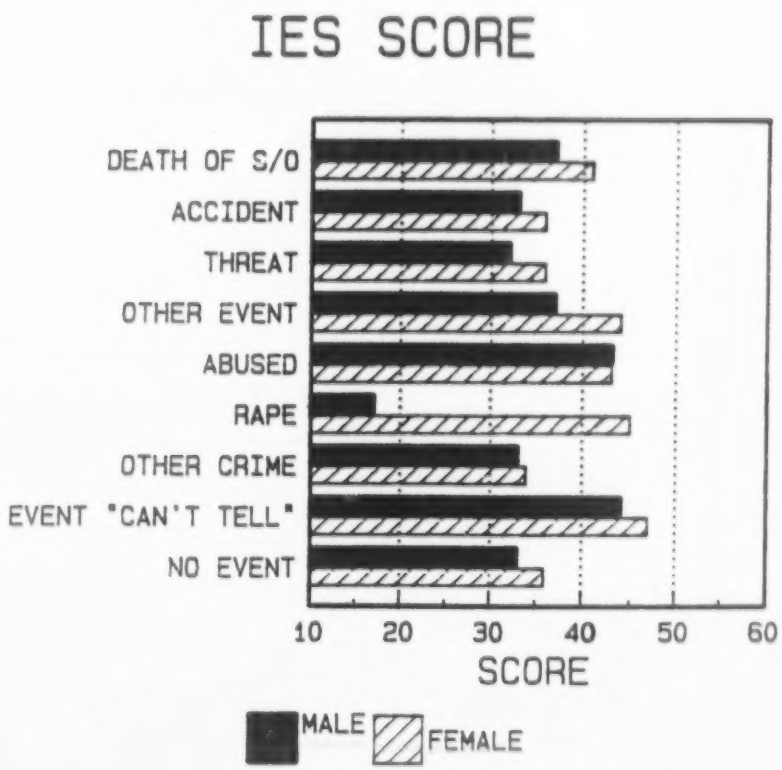


Figure 4

IMPACT OF OTHER TRAUMATIC EVENTS ON SYMPTOMS OF DEPRESSION, ANXIETY, AND ALCOHOL USE

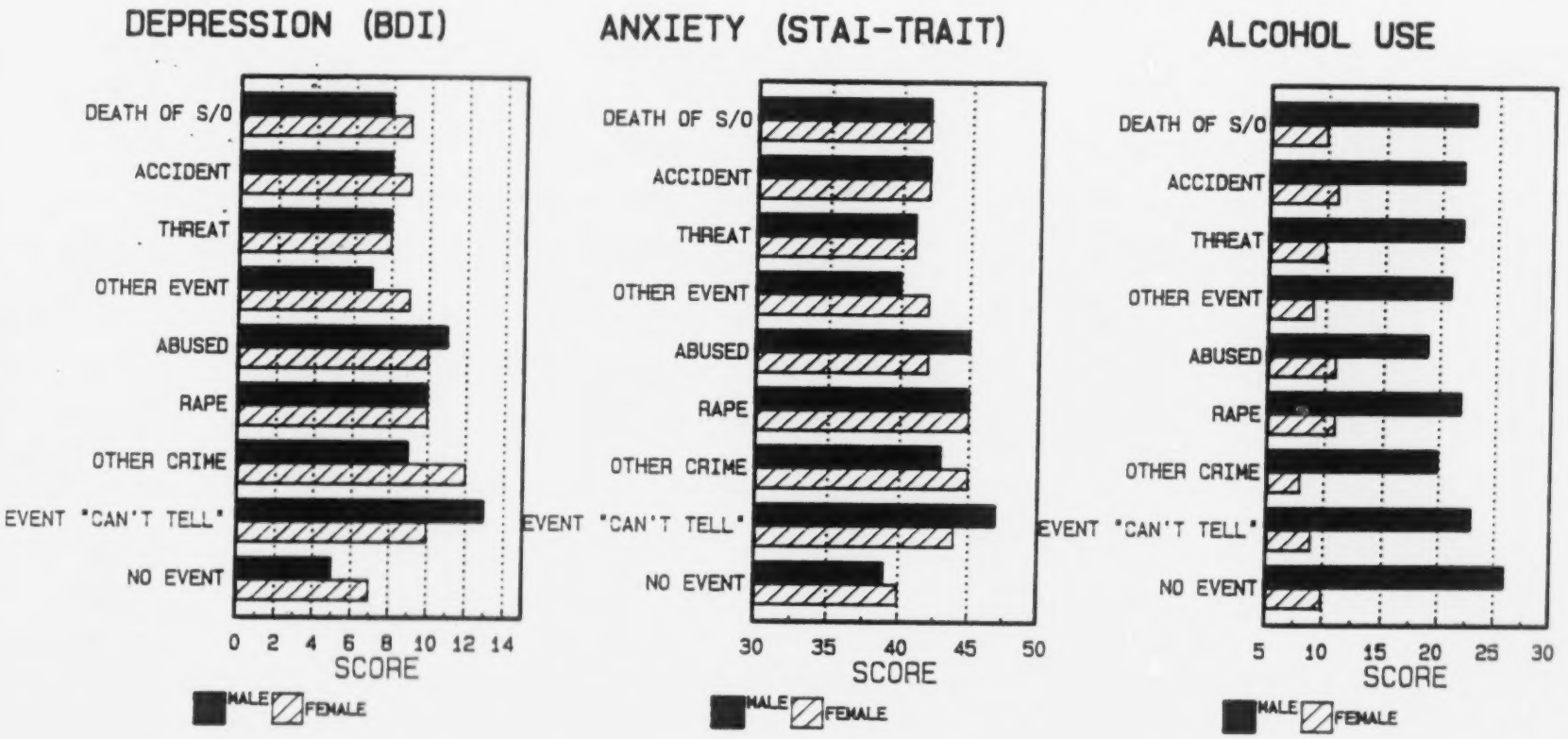


Figure 5

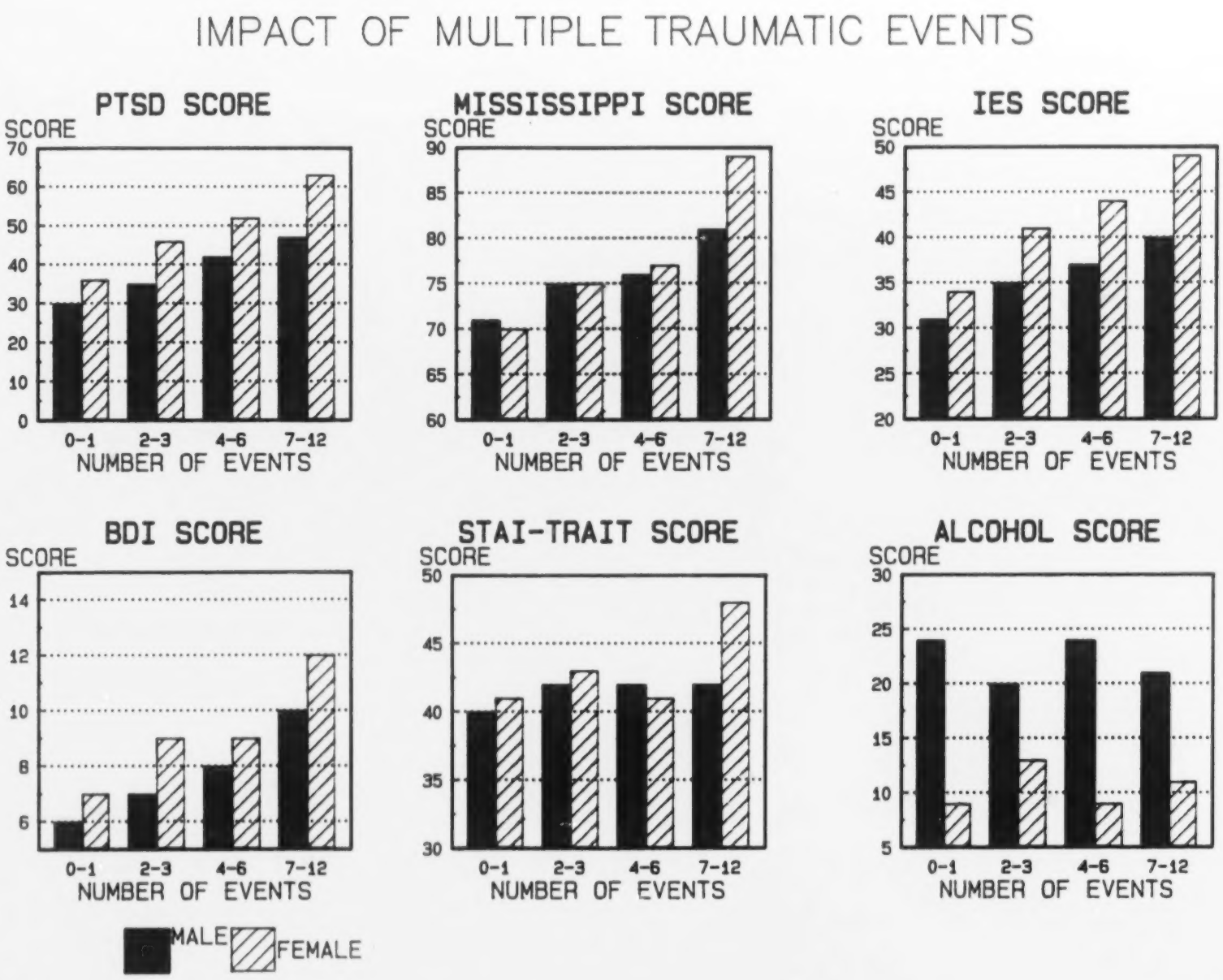

IMPACT OF MULTIPLE TRAUMATIC EVENTS
PTSD SCORE
SCORE
70
60
50
40
30
20
10
0
0-1
2-3
4-6
7-12
NUMBER OF EVENTS
MISSISSIPPI SCORE
SCORE
90
85
80
75
70
65
60
0-1
2-3
4-6
7-12
NUMBER OF EVENTS
IES SCORE
SCORE
50
45
40
35
30
25
20
0-1
2-3
4-6
7-12
NUMBER OF EVENTS
BDI SCORE
SCORE
14
12
10
8
6
0-1
2-3
4-6
7-12
NUMBER OF EVENTS
STAI-TRAIT SCORE
SCORE
50
45
40
35
30
0-1
2-3
4-6
7-12
NUMBER OF EVENTS
ALCOHOL SCORE
SCORE
30
25
20
15
10
5
0-1
2-3
4-6
7-12
NUMBER OF EVENTS
MALE
FEMALE

FIGURE 1 The proportion of subjects who experienced some type of traumatic event.

FIGURE 2 The proportion of subjects who experienced an event who then reported it as the most traumatic event.

FIGURE 3 The relationship between the type of event reported as being the worst and symptoms of traumatic stress. Women obtained significantly higher scores on the PTSD $F(1,436)=27.29$ $P < .0005$ and IES $F(1, 437) = 24.31$ $p < .0005$ questionnaires.

FIGURE 4 The relationship between the type of incidents experienced (even if it was not the worst event) and symptoms of depression, anxiety, and alcohol use. Women reported significantly higher levels of depression $F(1, 438) = 4.45$ $p < .05$. Conversely, men reported significantly higher levels of alcohol consumption $F(1, 434) = 36.43$ $p < .0005$ than women.

FIGURE 5 The impact of experiencing multiple traumatic events on symptoms of traumatic stress, depression, anxiety, and alcohol use. A series of one way ANOVAS revealed significant increases in PTSD $F(3, 434) = 25.51$ $p < .0005$, Mississippi $F(3, 433) = 8.82$ $p < .0005$, IES $F(3, 435) = 16.1$ $p < .0005$, and BDI $F(3, 436) = 4.67$ $p < .005$ scores as a function of the number of traumatic events experienced.